LISTING OF THE CLAIMS

Claims 1 - 19. (Cancelled)

Claim 20. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line;

b) passing sufficient electrical current through both walls along the line of contact to form a corresponding line of ablated tissue through both walls of the tissue without bonding the walls together; and

c) gauging the completeness of tissue ablation, including monitoring the current.

Claim 21. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line;

b) passing sufficient electrical current through both walls along the line of contact to form a corresponding line of ablated tissue through both walls of the tissue without bonding the walls together; and

c) gauging the completeness of tissue ablation, including monitoring voltage.

Claim 22. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line;

b) passing sufficient electrical current through both walls along the line of contact to form a corresponding line of ablated tissue through both walls of the tissue without bonding the walls together; and

c) gauging the completeness of tissue ablation, including monitoring impedance.

Claim 23. (Previously Presented) The method of Claim 22 in which monitoring the impedance includes monitoring change in impedance.

Claim 24. (Previously Presented) The method of Claim 22 in which monitoring the impedance includes monitoring rate of change in impedance.

Claim 25. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line;

b) passing sufficient electrical current through both walls along the line of contact to form a corresponding line of

ablated tissue through both walls of the tissue without bonding the walls together; and

c) gauging the completeness of ablation by monitoring the transmission of electrical signals across the line of contact.

Claim 26. (Previously Presented) The method of Claim 25 in which the gauging step includes generating an electrical signal in the tissue on one side of the line of contact and sensing whether it is transmitted across the line of contact.

Claim 27. (Previously Presented) The method of Claim 20, 21, 22, or 25 in which the completeness of tissue ablation is gauged simultaneously with passing electrical current through both walls to form the line of ablated tissue.

Claim 28. (Previously Presented) The method of Claim 20, 21, 22, or 25 including stopping the electrical current when it is gauged that the ablation is transmural.

Claim 29. (Previously Presented) The method of Claim 20, 21, 22, or 25 including generating an audible or visible signal when it is gauged that the ablation is transmural.

Claim 30. (Previously Presented) The method of Claim 20, 21, 22, or 25 in which the hollow organ or vessel is a human heart and the opposing walls are walls of a heart atrium.

Claim 31. (Previously Presented) The method of Claim 20, 21, 22, or 25 in which the foregoing steps are repeated a plurality of times, each time partially circumscribing the organ

or vessel and performing the steps a sufficient number of times to form a series of lines of ablated tissue that together substantially fully circumscribes a desired area of the organ or vessel.

Claim 32. (Previously Presented) The method of Claim 31 in which the organ or vessel is a human heart and the desired area comprises an area of a heart atrium adjacent to two pulmonary veins and the steps are performed a sufficient number of times to circumscribe the two pulmonary veins.

Claim 33. (Previously Presented) The method of Claim 32 in which the left pulmonary veins are circumscribed and the right pulmonary veins are separately circumscribed and the lines of ablation circumscribing the left and right pulmonary veins do not intersect.

Claim 34. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line;

b) passing sufficient electrical current through both walls along the line of contact to form a corresponding line of ablated tissue through both walls of the tissue without bonding the walls together; and

c) the hollow organ or vessel being a human heart and the opposing walls being walls of a heart atrium, and the method including performing a gross thoracotomy to access the human heart.

Claim 35. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line;

b) passing sufficient electrical current through both walls along the line of contact to form a corresponding line of ablated tissue through both walls of the tissue without bonding the walls together; and

c) the hollow organ or vessel being a human heart and the opposing walls being walls of a heart atrium, and the method including accessing the human heart intercostally or sub-xyphoid.

Claim 36. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line and for a distance on both sides of the line;

b) ablating the tissue in both walls along the line of contact sufficient to form a corresponding line of ablated tissue

through both walls of the tissue without bonding the walls together; and

c) the ablating including passing electrical current through the walls along the line and the method further including gauging the completeness of tissue ablation including monitoring current voltage or impedance.

Claim 37. (Previously Presented) A method for creating an electrically isolating line of ablated tissue on a hollow organ or vessel having opposing walls comprising:

a) bringing the opposing walls of the organ or vessel into contact with each other along a line and for a distance on both sides of the line;

b) compressing the walls together along the line of contact and for the distance on both sides of the line to substantially express liquid from therebetween; and

c) ablating the tissue in both walls along the line of contact sufficient to form a corresponding line of ablated tissue through both walls of the tissue without bonding the walls together.

Claim 38. (Previously Presented) The method of Claim 37 including gauging the completeness of tissue ablation.

Claim 39.(Previously Presented) The method of Claim 37 in which the ablating is carried out by passing electrical current through the walls.

Claim 40. (Previously Presented) The method of Claim 39 further including gauging the completeness of tissue ablation including monitoring current.

Claim 41. (Previously Presented) The method of Claim 39 further including gauging the completeness of tissue ablation including monitoring voltage.

Claim 42. (Previously Presented) The method of Claim 39 further including gauging the completeness of tissue ablation including monitoring impedance.

Claim 43. (Previously Presented) The method of Claim 42 in which monitoring the impedance includes monitoring the change in impedance.

Claim 44. (Previously Presented) The method of Claim 43 in which monitoring the impedance includes monitoring the rate of change in impedance.

Claim 45. (Previously Presented) The method of claim 38 in which gauging the completeness of ablation includes monitoring the transmission of electrical signals across the line of contact.

Claim 46. (Previously Presented)The method of Claim 45 in which gauging includes generating an electrical signal in the tissue on one side of the line of contact and sensing whether it is transmitted across the line of contact.

Claim 47. (Previously Presented) The method of Claim 36 or 38 including stopping the ablating when it is gauged that the ablation is transmural.

Claim 48. (Previously Presented) The method of Claim 36 or 38 including generating an audible or visible signal when it is gauged that the ablation is transmural.

Claim 49. (Previously Presented) The method of Claim 36 or 38 in which the hollow organ or vessel is a human heart and the opposing walls are walls of a heart atrium.

Claim 50. (Previously Presented) The method of Claim 36 or 38 in which the foregoing steps are repeated a plurality of times, each time partially circumscribing the organ or vessel and performing the steps a sufficient number of times to form a series of lines of ablated tissue that together substantially fully circumscribes a desired area of the organ or vessel.

Claim 51. (Previously Presented) The method of Claim 50 in which the organ or vessel is a human heart and the desired area comprises an area of a heart atrium adjacent to two pulmonary veins and the steps are performed a sufficient number of times to circumscribe the two pulmonary veins.

Claim 52. (Previously Presented) The method of Claim 51 in which the left pulmonary veins are circumscribed and the right pulmonary veins are separately circumscribed and the lines of

ablation circumscribing the left and right pulmonary veins do not intersect.

Claim 53. (Previously Presented) The method of Claim 20, 21, 22, 25, 36, or 39 in which the hollow organ or vessel is a human heart and opposed walls of a heart atrium are brought into contact by clamping them together and the electrical current through the opposed walls is bipolar current generated by an RF energy generator.

Claim 54. (Previously Presented) The method of any one of Claim 20, 21, 22, 25, 36, or 39 in which the hollow vessel or organ is the heart of a human patient and the method includes:

making a percutaneous incision proximal to the xyphoid to define an instrument receiving passage;

providing an ablation instrument including at least a pair of distal electrode members adapted to be connected to opposite terminals of an RF energy generator, to provide a bipolar electrical flow between the electrode members;

inserting the ablation instrument through the instrument receiving passage to a sub-xyphoid region;

advancing the ablation instrument through the sub-xyphoid region to a selected area of the atrium;

bringing opposed walls of an atrium of the heart together by clamping them along the line between the electrode members; and

ablating the walls along the line by energizing the electrode members.

Claim 55. (Previously Presented) The method of Claim 53 wherein the step of advancing comprises positioning the electrode members of the ablation instrument in an intrapericardial space.

Claim 56. (Previously Presented) A method for creating an electrically isolating line of ablated tissue in a human heart atrium:

a) bringing opposing walls of the atrium into contact with each other along a line by clamping the atrium near the pulmonary veins;

b) passing sufficient bipolar electrical current through both walls along the line of contact to form a corresponding line of ablated tissue through both walls of the atrium without bonding the walls together;

c) gauging the completeness of tissue ablation including monitoring change of impedance; and

d) providing an indication when ablation is gauged transmural.

Claims 57 - 59. (Cancelled)